

What is claimed is:

1. A liquid dispenser for a cap which is fitted to a mouth of a container holding a liquid therein, which liquid dispenser comprises a liquid-lifting means supported on an upper wall of the cap as pierced therethrough and comprised of a helical screw and a cylindrical tube encompassing the helical screw, both having upper terminal parts thrust upward individually from the upper wall and lower terminal parts inserted into the container when the cap is fitted to the mouth of the container; and a housing adapted to accommodate therein a helical screw-driving means for rotating the helical screw in the liquid-lifting means and furnished with a delivery nozzle for allowing a liquid lifted by the liquid-lifting means to flow out of the liquid dispenser.
2. The liquid dispenser according to claim 1, wherein the helical screw-driving means is adapted to transmit a driving force of an electrical driving source and rotate the helical screw, and the housing is provided at a proper position thereof with a switch for driving and stopping the electrical driving source.
3. The liquid dispenser according to claim 2, wherein the housing is comprised of a lower case having an empty storage part for accommodating the helical screw-driving means and a top face opening, and an upper case of a shape of a cover for blocking the top face opening of the lower case; the upper case is made of a material capable of deformation under an external force and restoration to an original shape by itself from the deformation and is furnished with a thin-wall part so as to function as a switching part capable of deformation under an external force and restoration to an original shape by itself from the deformation, and the switching part is consequently adapted to turn on the electrical driving source by application of an external pressure for depressing the switching part into the housing and turn off the electrical driving source by releasing the external force applied to the switching part, thereby allowing the switching part to resume an original state.

4. The liquid dispenser according to claim 1, wherein the delivery nozzle of the housing is disposed in an upward direction for enabling a liquid lifted by the liquid-lifting means to advance through an upwardly inclined path and reach an exhaust port and the delivery nozzle is provided in a lower part of the exhaust port with a liquid flow-inhibiting means for inhibiting a discharged liquid from flowing out of the exhaust port, down a lower face of an outer tube of the nozzle, toward a main body side of the housing.
5. The liquid dispenser according to claim 1, wherein the liquid-lifting means is provided at a terminal part of the helical screw with first attaching-detaching means, and the liquid dispenser further comprises second liquid-lifting means comprising a second helical screw and a second cylindrical tube encompassing the second helical screw and provided at a terminal part of the second helical screw with second attaching-detaching means so that the two liquid-lifting means are rendered attachable and detachable through the first and second attaching-detaching means, whereby the liquid-lifting means is adapted for extension and has a lifting path therein rendered extendable proportionately to a depth of the container.
6. The liquid dispenser according to claim 3, wherein the switching part is provided with an auxiliary switching piece shaped to cover at least the switching part of the housing and rendered shiftable between a state incapable of acting on the switching part and a state capable of depressing the switching part, and the electrical driving source of the helical screw-driving means is switched by a shifting motion of the auxiliary switching piece.
7. The liquid dispenser according to claim 4, wherein the switching part is provided with an auxiliary switching piece shaped to cover at least the switching part of the housing and rendered shiftable between a state incapable of acting on the switching part and a state capable of depressing the switching part, and the electrical driving source of the helical screw-driving means is switched by a shifting motion of the auxiliary switching piece.

8. The liquid dispenser according to claim 5, wherein the switching part is provided with an auxiliary switching piece shaped to cover at least the switching part of the housing and rendered shiftable between a state incapable of acting on the switching part and a state capable of depressing the switching part, and the electrical driving source of the helical screw-driving means is switched by a shifting motion of the auxiliary switching piece.
9. The liquid dispenser according to claim 3, wherein the helical screw-driving means comprises a motor having a rotational shaft disposed in a lateral direction therein, which motor is the electrical driving source, a driving force-transmitting mechanism for transmitting rotation of the rotational shaft as the driving force for the helical screw, and a laterally disposed battery for feeding electricity to the motor to complete the housing in a thin construction.
10. The liquid dispenser according to claim 4, wherein the helical screw-driving means comprises a motor having a rotational shaft disposed in a lateral direction therein, which motor is the electrical driving source, a driving force-transmitting mechanism for transmitting rotation of the rotational shaft as the driving force for the helical screw, and a laterally disposed battery for feeding electricity to the motor to complete the housing in a thin construction.
11. The liquid dispenser according to claim 5, wherein the helical screw-driving means comprises a motor having a rotational shaft disposed in a lateral direction therein, which motor is the electrical driving source, a driving force-transmitting mechanism for transmitting rotation of the rotational shaft as the driving force for the helical screw, and a laterally disposed battery for feeding electricity to the motor to complete the housing in a thin construction.

12. The liquid dispenser according to claim 6, wherein the helical screw-driving means comprises a motor having a rotational shaft disposed in a lateral direction therein, which motor is the electrical driving source, a driving force-transmitting mechanism for transmitting rotation of the rotational shaft as the driving force for the helical screw, and a laterally disposed battery for feeding electricity to the motor to complete the housing in a thin construction.

13. The liquid dispenser according to claim 1, wherein the liquid-lifting means has in an upper part thereof an air-bubble mixing part comprising a diametrically enlarged helical screw and a diametrically enlarged cylindrical tube, and the lifted liquid is foamed in the air-bubble mixing part and allowed to flow out of the liquid dispenser through the delivery nozzle.